BULLETIN OF MARINE SCIENCE, 39(3): 630–636, 1986

A NEW SPECIES OF *AMPELISCA* (CRUSTACEA, AMPHIPODA) FROM TRINIDAD

J. L. Barnard and J. B. R. Agard

ABSTRACT

An unusual new species of *Ampelisca* from Trinidad is described. Unlike other American species of the genus, the head bears a rostrum similar to various oriental species. In other characters, however, the species bears no relationship to Old World species; for example, the American species has a short article 2 of pereopod 5 in contrast to the elongate condition in the oriental species.

LEGEND

Capital letters denote main parts in following list; lower case letters to left of capital letters or in body of figure indicate modifications as per following list; lower case letters to right of capital letters indicate specimens described in captions: D, dactyl; G, gnathopod; H, head; L, labium; M, mandible; O, outer plate or ramus; P, pereopod; R, uropod; S, maxilliped; T, telson; U, labrum; V, palp; W, pleon; X, maxilla; Z, gill; d, dorsal; h, half; r, right; t, left.

Ampelisca paria new species

Figures 1–3

Description of Holotype, Immature Male, 3.67 mm.—Body smooth except last metasomite and urosomites; last metasomite with two parasagittal dorsal carinae; urosomite 1 elevated, humped, apex weakly cristate, laterally compressed, urosomites 2–3 coalesced, with weak dorsal notch.

Head as long as first three pereonites combined, much longer than tall, with long rostrum; lateral cephalic lobe forming weak angle below attachment of antenna 1, then head sloping down and evenly posteriorly except for weak notch just below corner. One corneal lens present on each side near dorsoanterior tip of head, another vestigial pair located at notch below attachment of antenna 1. Pigmentary mass present for each apical lens, weaker mass for each vestigial lens, similar mass behind upper pair.

Antenna 1 short, slender, nearly reaching apex of peduncular article 5 of antenna 2; peduncular article 2 much longer than article 1, article 3 short; accessory flagellum absent but marked by seta and sclerite; main flagellum shorter than peduncle, consisting of 5 articles, first article with 2 aesthetascs attached proximally and apically, article 2 with one apical aesthetasc.

Antenna 2 of only moderate length, peduncular article 3 short, article 4 longer than 5, slender, anterior margins of articles 3 and 5 with weakly developed male setular tufts, flagellum 17—articulate (some articles just proliferating basally), bearing sparse medium setae.

Epistome unproduced; labrum scarcely incised distally, broader than long (tall). Labium normal, with well-developed inner lobes.

Mandible with well-developed strong triturative molar, incisor toothed; palp 3—articulate, article 1 short, article 2 longer than 3, setose, article 3 non-falciform, not dilated distally.

Maxilla 1: inner lobe with 1 simple and 1 plumose setae, outer lobe with 11 spines, provided with one to four lateral teeth each; palp 2—articulate, symmetrical on both sides, second article dilated distally, provided with distal teeth accompanied by several spines and subdistal setae. Maxilla 2 with narrowed lobes,

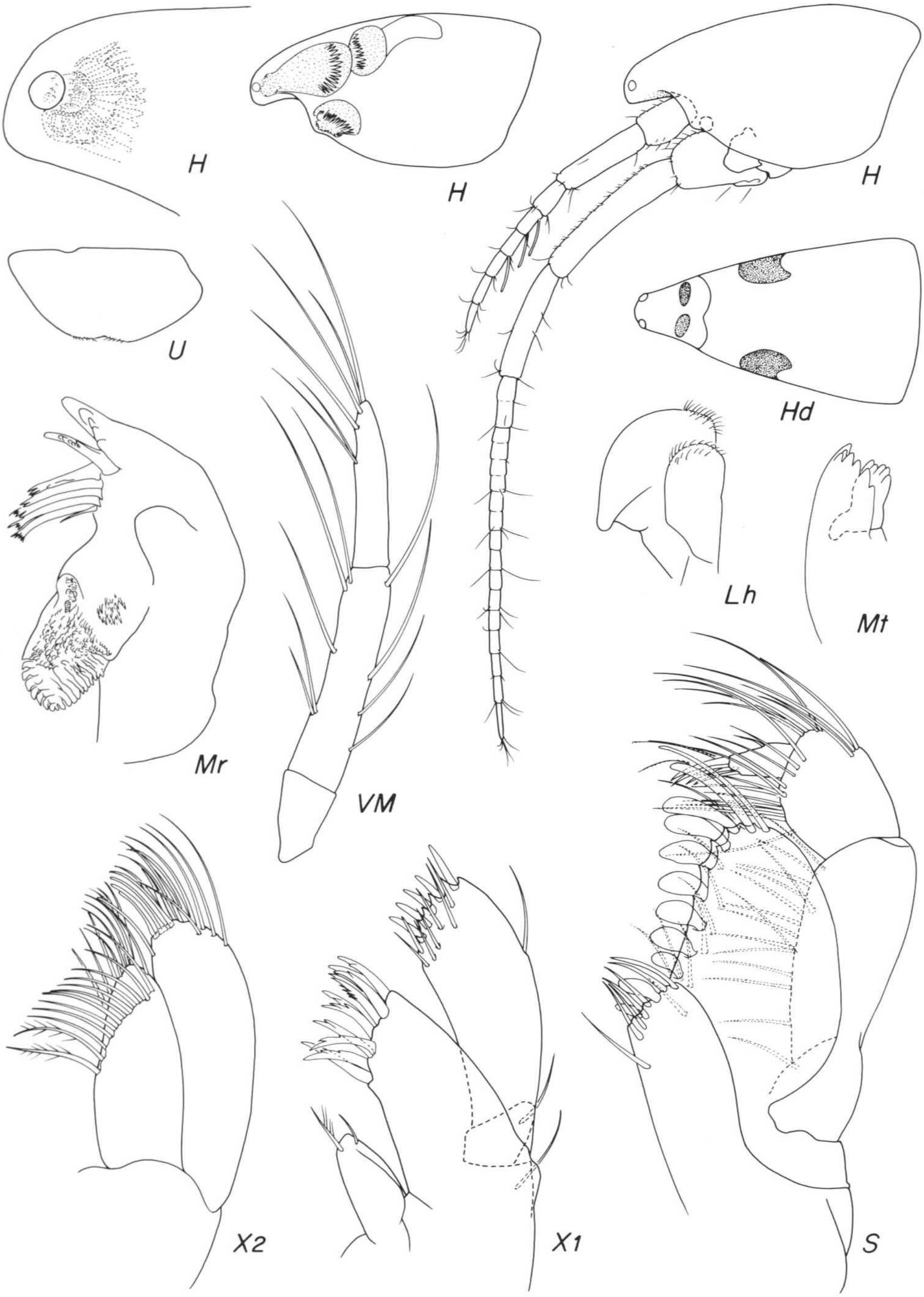

Figure 1. *Ampelisca paria* n. sp., unattributed figures, holotype male "n".

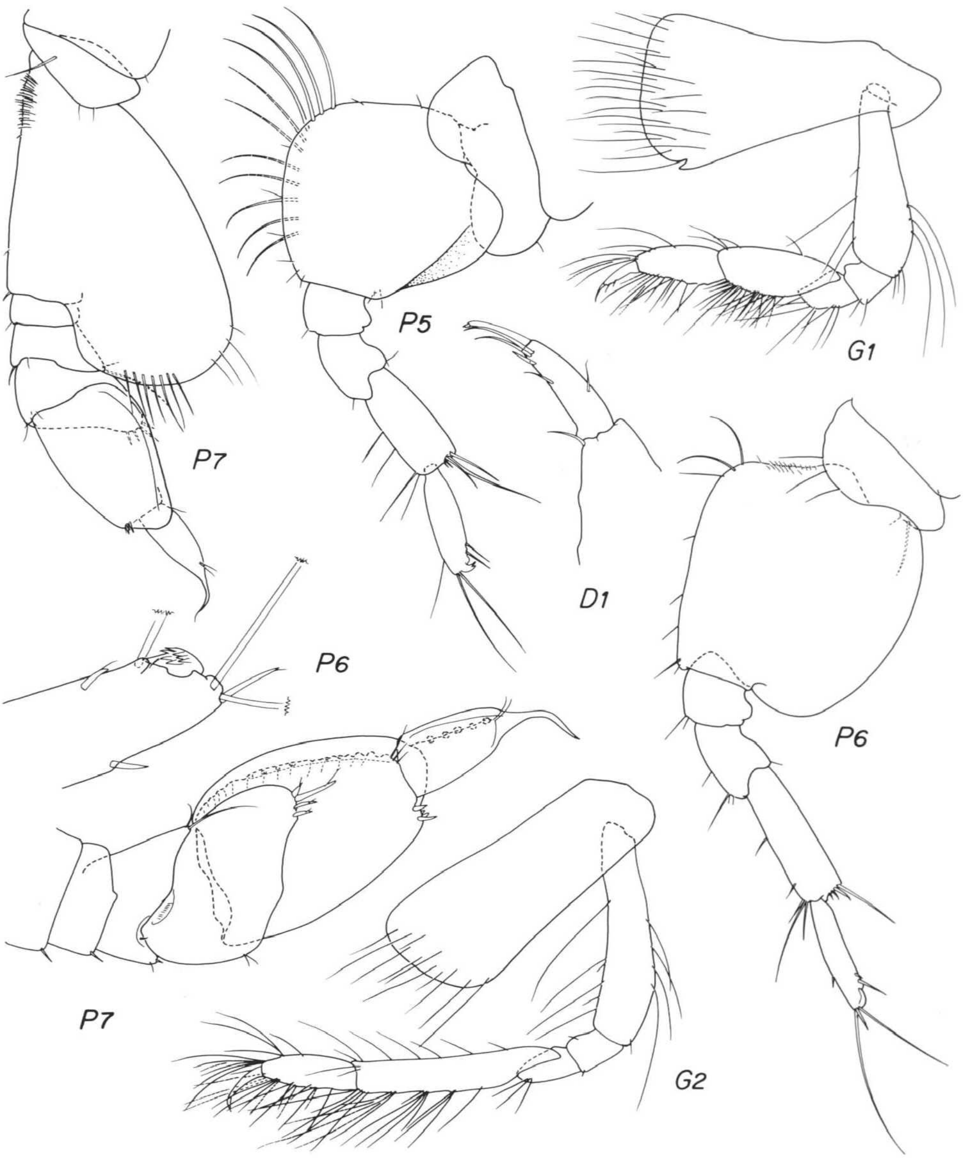

Figure 2. *Ampelisca paria* n. sp., unattributed figures, holotype male "n".

inner lobe with oblique facial row of setae. Maxilliped: inner lobe of ordinary length, with two distal spines intermixed with several plumose setae; outer lobe reaching apex of palp article 2, bearing row of strong obtuse spines along medial margin; palp 4—articulate, article 3 not lobed, article 4 with main nail about as long as remaining part of article.

Coxae 1–4 much longer than broad, coxa 1 dilated distally, with convex distal (=ventral) margin provided with several rows of long plumose setae, with posteroventral notch; coxae 2–4 with truncate distal margins, coxa 2 with 2 rows of setae, coxae 3–4 with sparse single rows, coxa 4 with well-developed postero-

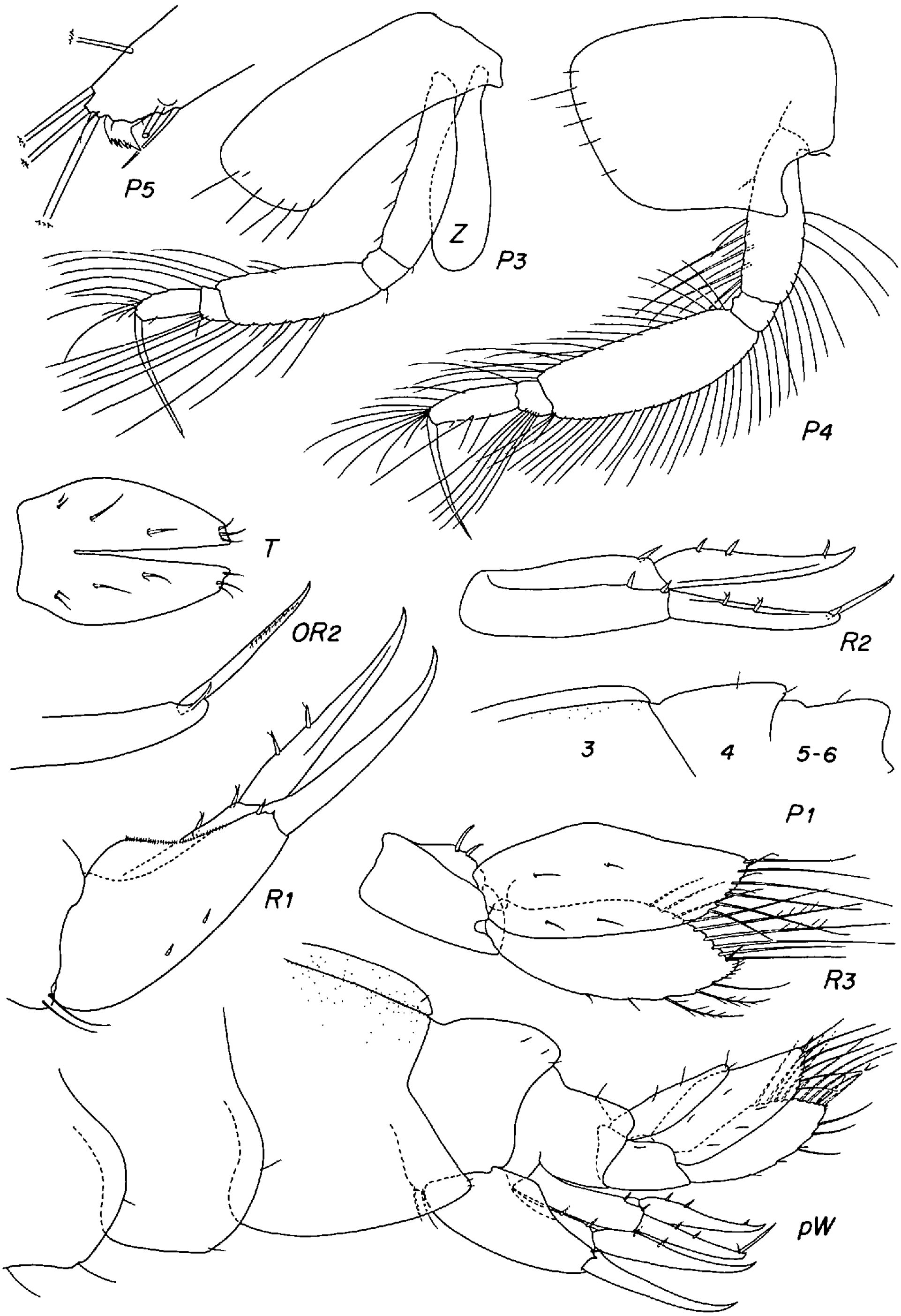

Figure 3. *Ampelisca paria* n. sp., unattributed figures, holotype male "n"; p = female "p".

proximal lobe produced subsharply in proximal part (but opposite margins almost parallel).

Gnathopods 1–2 linear, simple, gnathopod 1 shorter than gnathopod 2; gnathopod 1: article 5 longer than 6, densely setose along posterior margins; article 6 tapering distally with dactyl shorter than article 6, bearing nail and 4 setules along inferior margin and 1 seta on outer margin. Gnathopod 2: article 5 linear, long, moderately setose; article 6 much shorter than 5, tapering distally, dactyl like that of gnathopod 1.

Pereopod 3 of medium stoutness, with articles 4–6 bearing long plumose setae along both margins, except posteriorly on article 6 and basally on article 4; article 4 slightly inflated; dactyl slender, almost straight, much longer than article 6. Pereopod 4 like that of pereopod 3, but much longer, article 6 with several posterior setae, article 4 setose on both sides to base.

Pereopod 5: article 2 ovoid, with smooth posterior flange, anterior margin with one row of plumose setae; article 5 not produced distoposteriorly, bearing row of short spines on apex; article 6 with few long distal setae, dactyl short, nail-shaped, with 5+ outer cusps. Pereopod 6: article 2 subquadrate, with strong posterior lobe and poorly setose anterior margin; articles 3–7 like those of pereopod 5. Pereopod 7: as long as pereopod 6 but article 2 large, expanding distalwards, lobe reaching distal apex of article 4, bearing sparse plumose setae along ventral margin in two disjunct groups; article 3 short; article 4 slightly longer than 3, weakly produced at anterodistal apex and bearing one long and one short posterodistal setae; article 5 very wide, with weak posterodistal spination, article 6 tumid, elongate, basally overriding article 5, almost smooth but with posterofacial axial stridulating ridge (?possibly glandular meati); dactyl tumid basally, then tapering rapidly and apically flagellate, much shorter than article 6, also bearing facial stridulating ridge.

Unplaited gills on coxae 1–6. Pleopods well developed, normal, with two retinacula and one simple accessory each.

Epimera 1–2 deeply convex behind, each with posterior setule, posteroventral setule at subsharp corner, epimeron 1 with 1 anteroventral seta; epimeron 3 dominant, very broad, posterior margin almost straight, posteroventral corner subsharp, with setules.

Uropods 1–2 short; uropod 1: peduncle stout, poorly spinose with translucent flange covering base of uropod 2, dorsal margin of flange pectinate, outer face of peduncle with 2 spines, apicolateral corner with spine and weak cusp, medial margin with 2 spines, rami slender, as long as peduncle, curved and pointed distally, outer naked, inner ramus with 2 subbasal spines. Uropod 2: peduncle slender, slightly shorter than rami, with 2 dorsolateral and one dorsomedial spines, rami nearly subequal, outer with 2 dorsal spines, 2 long and short apical spines, inner ramus with 2 subbasal dorsal spines, one subapical dorsal spine, long gap between these groups. Uropod 3 long, foliaceous, strongly exceeding apex of uropod 2: peduncle stout, short, with 2 medial spines; rami subequal, foliaceous, with subsharp apices, outer sparsely setose laterally, densely setose apicomedially, inner with few stout dorsal setules, bearing plumose setae along beveled apicolateral margin.

Telson reaching halfway along rami of uropod 3, longer than broad, incised three-fourths of its length, each lobe tapering distally, narrowly beveled apically, each with 3 apical setules, 2 dorsal axial setae and subbasal pair of penicillate setules.

Female "p" 6.06 mm.—Ovigerous; like male but more setose because of larger size of this individual; oostegites on coxae 2–6 strap-shaped, narrow, weakly setose. Hump on pleonite 4 lower than in male. Inner ramus of uropod 1 with 3 spines, inner ramus of uropod 2 with 2 basal and 2 subapical spines with gap between two sets, outer ramus with 6 spines.

Female "q" Ovigerous.—One egg; flagellum of antenna 1 with 5 articles, also with aesthetascs on articles 1–2 but no basal set on article 1; flagellum of antenna 2 with 8 articles, not proliferate; inner ramus of uropod 1 with 2 spines, of uropod 2 with 2 basal and one subapical with gap between sets, outer ramus with 3 spines.

Illustrations.—Drawing of maxilla 1 slightly enlarged relative to maxilla l; pereopods 1–7 enlarged equally.

Etymology.—Named for the Gulf of Paria, the type-locality.

Holotype.—USNM No. 195141, male "n" 3.67 mm, illustrated.

Type-locality.—Trinidad, Gulf of Paria, Oropuche Bank, Institute of Marine Affairs station T 8.0, 10°15'N, 61°37'W, depth 1.5 m (5 ft), silty sand, salinity 19.7‰, temperature 29.9°C, dissolved oxygen 6.4 ppm, 30 August 1983, coll. J. B. R. Agard.

Material.—Type-locality, female "p" 6.06 mm (Fig. 3); female "q" 4.57 mm.

Relationship.—The following species of *Ampelisca* bear a rostrum similar to that of *A. paria*: *Ampelisca cyclops* Walker (1904), *A. insignis* (K. H. Barnard, 1916, as *Triodos insignis*), *A. rostrata* Spandl (1924), *A. misakiensis* Dahl (1944) and *A. iyoensis* Nagata (1959). Imbach (1969) has merged *A. cyclops* and *A. iyoensis* as subspecies occurring in warm waters of east Asia, and Karaman and Barnard (1981) have suggested that *A. insignis* and *A. misakiensis* are synonyms, with distribution in the IndoPacific between Japan and South Africa. *Ampelisca rostrata* is said to occur in freshwater of the Philippine Islands.

There appears to be no relationship of *A. paria* to the Old World species of *Ampelisca* as discussed below. For example, all of them have an elongate article 3 of pereopod 7 in contrast to *A. paria*.

Ampelisca rostrata differs from *A. paria* in the densely setose article 2 of pereopod 7, with article 6 thinner and attached normally to article 5; the peduncle of uropod 1 and the rami of uropod 2 have many more spines in *A. rostrata*.

Ampelisca paria differs from *A. cyclops* and *A. iyoensis* in the lack of tooth and hump on epimeron 3, the poorly setose article 2 of pereopod 7 on which the setae are divided into 2 groups, the slender and strongly spinose peduncle of uropod 1, the strongly armed rami of uropod 2, the shorter antenna 1 and longer antenna 2.

Ampelisca paria differs from *A. insignis* and *A. misakiensis* in the more regularly shaped and extended article 2 of pereopod 7 but bearing few setae, the enlarged article 6 and apically flagellate article 7, the longer uropods 1–2 but much less spinose, the subsharp posteroventral angle of epimeron 3 (versus rounded), the nonlobate article 5 of pereopods 5–6, the lack of process on urosomites 2–3 (fused) and the larger rami of uropod 3.

ACKNOWLEDGMENTS

We thank Mr. D. Hardy of NOAA (U.S.A. Federal Agency) for his help in getting J. L. Barnard to Trinidad and Tobago; Mrs. L. B. Lutz of Mobile, Alabama, for inking our drawings; P. B. Crowe of Smithsonian for laboratory assistance; and the following referees who helped improve this study: G. D. Goeke of Gulf Coast Research Laboratory, Ocean Springs, Mississippi, and Dr. T. E. Bowman of Smithsonian Institution.

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DATED ACCEPTED: October 21, 1985.

ADDRESSES. *(J.L.B.) NHB-163, Department of Invertebrate Zoology, Smithsonian Institution, Washington, D.C. 20560; (J.B.R.A.) Institute of Marine Affairs, P.O. Box 3160, Carenage Post Office, Trinidad and Tobago, West Indies.*